



Attorney Docket No.: CTC-2 (401 W 185)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In U.S. Continuation Patent Application Of:)

Kenneth C. Crater and)

Craig Goldman)

) Examiner: J. Miller

Application No.: 09/436,368)

) Group Art Unit: 2711

Filed: November 9, 1999)

For: DISTRIBUTED INTERFACE)

ARCHITECTURE FOR PROGRAMMABLE)

INDUSTRIAL CONTROL SYSTEMS)

Commissioner For Patents

Washington, D.C. 20231

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Applicants submit herewith Form PTO-1449 and a copy of the references listed thereon.

Since this Supplemental Information Disclosure Statement is being filed within three months of the filing date of the Application or before the mailing date of a First Office Action on the merits, whichever event occurs last (37 C.F.R. § 1.97(b)), no certification or fee is due. The Commissioner is hereby authorized to charge any deficiency in fees to Deposit Account No. 23-0280. A duplicate copy of this paper is enclosed for that purpose.

Respectfully submitted,

Dated: October 3, 2000

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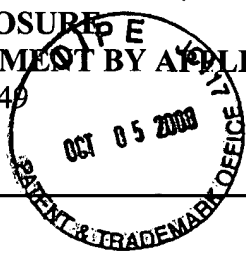
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STATEMENT BY APPLICANT**
PTO-1449

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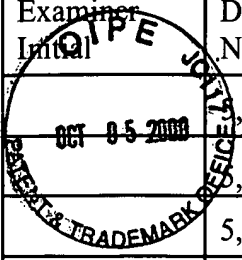
/107493.1



U.S. PATENT DOCUMENTS

RECEIVED
OCT -6 2000
TC 2700 MAIL ROOM

Examiner Initial	Document Number	Date	Name
	3,971,000	07/20/76	Cromwell
	4,319,338	03/09/82	Grudowski et al.
	4,688,167	08/18/87	Agarwal
	4,845,644	07/04/89	Anthias et al.
	4,858,152	08/15/89	Estes
	4,897,777	1/30/90	Janke et al.
	4,912,623	3/27/90	Rantala et al.
	4,937,777	06/26/90	Flood et al.
	4,949,274	08/14/90	Hollander et al.
	4,953,074	08/28/90	Kametani et al.
	4,992,926	02/12/91	Janke et al.
	5,012,402	04/30/91	Akiyama
	5,023,770	06/11/91	Siverling
	5,047,959	09/10/91	Phillips et al.
	5,072,356	12/10/91	Watt et al.
	5,072,412	12/10/91	Henderson, Jr. et al.
	5,109,487	04/28/92	Ohgomori et al.
	5,122,948	06/16/92	Zapolin
	5,131,092	07/14/92	Sackmann et al.
	5,134,574	07/28/92	Beaverstock et al.
	5,151,896	09/29/92	Bowman, et al.
	5,151,978	9/29/92	Bronikowski

Examiner Initial	Document Number	Date	Name
	5,157,595	10/20/92	Lovrenich
	5,159,673	10/27/92	Sackmann et al.
	5,161,211	11/03/92	Taguchi et al.
	5,165,030	11/17/92	Barker
	5,179,700	01/12/93	Aihara et al.
	5,225,974	07/06/93	Mathews et al.
	5,245,704	9/14/93	Weber et al.
	5,251,302	10/5/93	Weigl et al.
	5,283,861	02/01/94	Dangler et al.
	5,297,257	03/22/94	Struger et al.
	5,307,463	04/26/94	Hyatt et al.
	5,321,829	06/14/94	Zifferer
	5,349,675	09/20/94	Fitzgerald et al.
	5,398,336	03/14/95	Tantry et al.
	5,406,473	04/11/95	Yoshikura et al.
	5,420,977	05/30/95	Sztipanovits et al.
	5,440,699	08/08/95	Farrand et al.
	5,446,868	08/29/95	R. A. Gardea, et al.
	5,528,503	06/18/96	Moore et al.
	5,598,536	01/28/97	Slaughter, III et al.
	5,613,115	03/18/97	Gihl et al.
	5,623,652	04/22/97	Vora et al.
	5,625,781	04/29/97	Cline et al.
	5,699,350	12/16/97	Kraslavsky
	5,734,831	3/31/98	Sanders
	5,805,442	09/08/98	Crater et al.
	5,950,006	9/7/1999	Crater et al.

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 OCT - 6 2008
 TC 2100 MAIL ROOM

Examiner Initial	Document Number	Date	Name
	5,975,737	11/2/1999	Crater et al.
	5,982,362	11/9/1991	Crater et al.
	5,997,167	12/7/1999	Crater et al.

FOREIGN PATENT DOCUMENTS

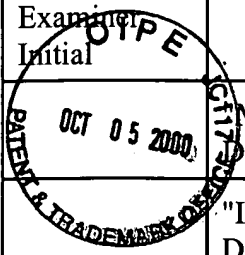
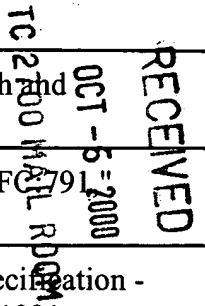
Examiner Initial	Document Number	Date	Country	Trans.
	DE296 00 609 U1	27.03.97	Germany	No
	DE 44 10 171 C1	24.3.94	Germany	No
	DE 196 15 093 A 1	17.4.96	Germany	No
	EP 0814 393 A1	22.5.97	PCT	Yes
	EP 0 542 657 A1	19.5.93	PCT	Yes
	WO 97/18636	22.5.97	PCT	Yes
	WO 98/53581	26.11.98	PCT	Yes

OTHER DOCUMENTS

Examiner Initial	
	When Technology Standards Become Counterproductive, Kenneth C. Crater, President, Control Technology Corporation, Hopkinton, MA dated 7/9/99, Pages 1-5
	A White Paper State Language for Machine Control, Kenneth C. Crater, President, Control Technology Corporation, Hopkinton, MA dated 7/9/99, Pages 1-11
	New PC-based Process Control & Data Acquisition Software Integrates Remote Internet Capabilities with Fast Pentium Support, Fred A. Putnam, LABTECH President, Pages 1-3
	August 1996 CONTROL Magazine - In The News – Electric Utility Industry Embarks on Automation Overhaul, pages 1-10
	July 1997 CONTROL Magazine – Magazine Software Review – NT Package Give Plant Access Through the Web, pages 1-3
	October 1996 CONTROL Magazine – Software Review - Article Archives, pages 1-2

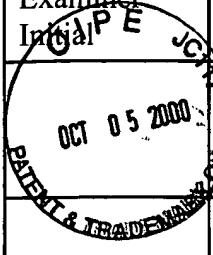
Examiner Initial	
OCT 05 2000	ICS Instrumentation & Control Systems – Windows NT for real-time control: Which way to go? - ICS Magazine, pages 1-8
	I&CS July 1999 - SPECIAL REPORT SOFTWARE - Software: Open source OSs, objects, Web-based communications challenge status quo, (Wayne Labs, Senior Technical Editor), pages 24-49
	Landis & Staefa MS 2000, pages 1-2
	Landis & Staefa Standards and Open Protocols Integration System Architecture, page 1
	Annabooks Bookstore, Programming and Interfacing the 8051, by Sencer Yeralan and Asutosh Ahluwalia, pages 1-2
	SoftPLC Corporation - Java Support in SoftPLC Corp. Products, pages 1-5
	Mach J. Company, MachJ, an embeddable, clean room Java Virtual Machine, page 1
	SoftPLC Corporation - The History of Programmable Controllers, Looking Back From the Year 2000 A.D. (Or, How Computers Replaced Proprietary PLC'S), pages 1-7
	SoftPLC Corporation - TOPDOC: Advanced PLC program development & documentation software, pages 1-12
	Control Engineering Online Magazine Articles (July 1998) - No. that's not a PC, it's a PLC, pages 1-2
	Rockwell International Corporation, Allen-Bradley Introduces PLC-5/80E Controller for Ethernet Communication Networks
	Rockwell Automation - Search Results, pages 1-2
	Rockwell International Corporation, Vision & Direction, The Direction of Automation Systems, pages 1-4
	Rockwell International Corporation, Vision & Direction, The Role of Open Systems, pages 1-4
	Rockwell International Corporation - Vision & Direction - The Direction of Automation Systems - Emergence of Application-Specific Control Solutions, pages 1-2
	Rockwell International Corporation - Vision & Direction - The Direction of Automation Systems - The New Factory Worker, pages 1-2
	Rockwell International Corporation, Vision & Direction, Control System Deliverables - The Next Step, pages 1-2

Examp Initial	
	Rockwell International Corporation, Vision & Direction, Conclusion & Acknowledgments, pages 1-2
	Rockwell International Corporation - Choices - Perspectives on the Future of Automation Control, page 1
	Rockwell International Corporation - Allen-Bradley - Networks - Ethernet for Industrial Control - An Ethernet White Paper - April 21, 1998, pages 1-13
	Rockwell International Corporation - Automation Systems Control - General - World-Class Automation Systems from Allen-Bradley, Last Updated: May 7, 1998, pages 1-12
	PC QUEST, Dec '97 - Point, click, Control - C-Programmable controllers take the pain out of embedded control, pages 1-2
	berthel - automation with imagination - PCI 100 - Programmable logic controller for SIMATIC/IBM IPC, pages 1-3
	YAHOO! Personalized Search Results for programmable logic controller internet access, pages 1-3
	SIEMENS - SIMATIC report 1/97 - New in the SIMATIC Library, pages 1-2
	CONTROL Magazine August 1998 - Field Test - DYNAMIC SOFTWARE MAKES CONTROL INTEGRATION EASIER, pages 1-2
	Design and Reuse Web Site - EDTN Network - Analyze IP Database Content - Analyse Reuse Blocks per taxonomy tree, pages 1-10
	Engineering Information, Inc. - Ei CPX WEB [1990-94]
	Using World Wide Web for Control Systems, F. Momal, C. Pinto-Pereira, AT Division CERN, 1211 Geneva 23, http://mish231.cern.ch/Docs/ICALEPCS/1995/icalep95.htm .
	"Ethernet Base Gateway Product," AEG-Modicon, published 1991.
	"Modicon Modbus Plus Network BM85 Bridge Multiplexer User's Guide," Groupe Schneider, August 1995.
	"Modicon Modbus Plus Network Planning and Installation Guide," AEG Schneider Automation, April 1996
	"Open Modbus/TCP Specification," A. Swales, 9/3/97
	"MEB Installation and Programming Manual," Niobrara Research and Development Corporation, 9/24/97

Examiner Initial	
	
	"MEB-TCP Installation and Programming Manual," Niobrara Research and Development Corporation, 10/1/97
	"Internet Protocol, Darpa Internet Program, Protocol Specification - RFC:791," Defense Advanced Research Projects Agency, September 1981
	"Transmission Control Protocol, Darpa Internet Program, Protocol Specification - RFC:793," Defense Advanced Research Projects Agency, September 1981
	"Open MODBUS/TCP Specification," <i>A. Swales</i> , 9/3/97
	"[comp.unix.programmer] Unix-Socket-FAQ For Network Programming," Vic Metcalfe, Andrew Gierth and other contributors, 1/22/98
	"TCP/IP Illustrated, Vol. 2, The Implementation," Gary R. Wright, W. Richard Stevens, 1997
	"Winsock 2 Information," Bob Quinn, 1995-1998 (last updated December 5, 1998)
	Website Information of PROFIBUS: Technical Overview
	Website Information of ODVA - The Open DeviceNet's Vendor Association
	Website of PROFIBUS International - Welcome Page
	LABTECH Corporation website, http://www.labtech.com .
	http://www.adeptscience.com/archive_pressroom/html/labtechnet.html ; <i>Adapt PressRoom Archives. A collection of Adept Scientific's archive news releases. Hot Coffee on the Internet!</i>
	"Networking Reference Manual," 1994 National Instruments Corporation, Part Number 320587B-01, September 1994, Copyright © 1993.
	"Data Acquisition VI Reference Manual for Windows," 1994 National Instruments Corporation, Part Number 320536B-01, September 1994, Copyright © 1992.
	"Tutorial for Windows," 1994 National Instruments Corporation, Part Number 320593B-01, September 1994, Copyright © 1993.
	Abstract of "Implementing distributed controls for FMC's using Internet utilities," S. S. Jagdale and N. Merchant; <i>Computers of Industrial Engineering</i> , Vol. 31 No. 1-2, p. 87-90; October, 1996 (UK).
	Abstract of "Process Control takes to the Net," Greg Paula, <i>Mechanical Engineering</i> Vol. 118 No. 12 December 1996, page 55.
	Abstract of "Remote interrogation and control of sensors via the internet," Peter L. Furh and Euan F. Mowat; <i>Sensors</i> , Vol. 12 No. 12, 6 pp; December 1995.

Examiner Initial	Abstract of "Process control takes to the Net," G. Paula; Mechanical Engineering, Vol. 118, No. 12, p. 55, December, 1996.
	Abstract of "Implementation of CAN/CAN bridges in distributed environments and performance analysis of bridged CAN systems using SAE benchmark," H. Ekiz, A. Kutlu and E. T. Powner; Conference Paper, IEEE Southeastern '97, Engineering new energy, IEEE, p. 185-7, 1996.
	Abstract of "Managing interdisciplinary project teams through the Web," R. E. Goodman and P. Chinowsky; Conference Paper, WebbNet 96 - World Conference of the Web Society, pp. 180-5, 1996.
	Abstract of "Learning environment for a process automation system using computer networks," J. Lindfors, L. Yliniemi and K. Leivska; Conference Paper, Step '96 - Genes, Nets and Symbols, pp. 137-43, 1996 (Finland).
	Abstract of "Distributed agent systems for intelligent manufacturing," D. H. Norrie and B. R. Gaines; Canadian Artificial Intelligence, No. 40, p. 31-3, Autumn 1996 (Canada).
	Abstract of Proceedings of AUTOFACT 1995 Conference, "Today's Automated, Integrated Factory," Soc. Manuf., Eng., Dearborn, MI; 1995.
	Abstract of "The ECOSSE Control HyperCourse," C. M. Merrick and J. W. Ponton; Computers & Chemical Engineering, Vol. 20, Part B, p. S 1353-8, 1996 (UK).
	Abstract of "Chemical-better batch controls," T. Crowl; Control & Instrumentation, Vol. 28, No. 5, p. 53-4, May 1996 (UK).
	Abstract of "Industrial software does 32-bit Windows, prepares for the net," W. Labs; I 8CS, Vol. 69, No. 3, p. 23-6, 31-4, March 1996, USA.
	Abstract of "A case study for international remote machining," G. C. I. Lin and Kao Yung-Chou; Conference Paper, Proc. SPIE-Int. Soc. Opt. Eng., Vol. 2620, p 553-60, 1995.
	Abstract of "Standardization of long-distance protocols," R. Dinges; Journal Paper, Generation Changes in Network Conductor Systems, ITG - Fachberichte, Vol. 134, p. 97-113, 1995 (West Germany).
	Abstract of "Proceedings of AUTOFACT Conference," Soc. Manuf. Eng., 684 pp., Dearborn, MI; 1993.
	Abstract of "Control system design V. Communications orchestrate process control," F. Glow; In Tech, Vol. 36, No. 9, p. 68-74, Sept. 1989.
	Abstract of "Functions and characteristics of local networks adapted to industrial applications," J. Morlais; Electronique Industrielle, No. 97, p. 56-63, Nov. 15, 1985; France.

Examiner Initials	
Abstract of "Intelligent supervisory control of submerged-arc furnaces," Markus Reuter, Carla Pretorius, Chloe West, Peter Dixon and Morne Oosthuizen, JOM Vol. 48, No. 12, Dec. 1996, p. 49-51.	RECEIVED JOM-6 10-6-96 TO STUB MAIN ROOM
Abstract of "Simulation on the integration of process control systems of rolling mill plants through standard networks," Choo Young Yeol, Hwang Hwa Won and Kim Cheeha, Proceedings of the Industrial Computing Conference, Instrument Society of America, Research Triangle Park, NC, USA. P 1-14; Vol. 6, No. 1, 1996.	
Abstract of "Environmental waste control digest," Clayton H. Billings; Public Works Vol. 127 No. 7, 6 pp, June, 1996.	
Abstract of "Experiments in tele-handling and tele-machining at the macro and micro scales, using the Internet for operational environment transmission," Mamoru Mitsuishi, Toshio Hori, Tomoharu Hikita, Masao Teratani, Takuro Watanabe, Hirofumi Nakanishi and Bruce Kramer; IEEE International Conference on Intelligent Robots and Systems Vol. 2, 1995.	
Abstract of "A phototyping and reverse engineering system for mechanical parts-on-demand on the national network," Fred Hansen, Elias Pavlakos, Eric Hoffman, Takeo Kanade, Raj Reddy, Paul Wright; Journal of Manufacturing Systems, Vol. 12 No. 4, p. 269-281; 1993.	
Abstract of "Mathematical model and optimization of furfural treating process," Tao Peng, Jinshou Yu and Huihe Shao; Huadong Huagong Xueyuan Xuebao/Journal of East China Institute of Chemical Technology Vol. 17 No. 1, p. 99-104; February 1991.	
Abstract of "User's Aspect of Telecommunication and Information Processing in Plant Factory; Hashimoto Yasushi (1); Journal of the Institute of Electronics, Information and Communication Engineers, Vol. 78, NO. 5, p. 475-81, Fig. 3, Ref. 7, 1995. (Japan).	
Abstract of "High-efficient application technology of DCS from the viewpoint of users," Oka Norihito (1); Narita Tsutomu (1); (1) Yamatake-Honeywell Co., Ltd.; Otomeshon, Vol. 40, No. 2, p. 24-28, Fig. 5, Part 2, 1995. (Japan)	
Abstract of "Users' experience with software tools for process integration. General results; Stougie, L.; Roeterink, H.J.H.; Van Wijk, A.; Stikkelman, R.M.; Nov. 1996.	
Abstract of "Integrated design and process technology. Volume 1;" Cooke, D.; Kraemer, B.J.; Sheu, P.C.Y.; Tsai, J.P.; Mittermeir, R.; Society for Design and Process Science, p. 51-57; 1996. (USA)	
Abstract of "Integrated design and process technology. Volume 2;" Tanik, M.M.; Bastani, F.B.; Gibson, D.; Fielding, P.J.; Society for Design and Process Science, p. 423-430, 1996. (USA)	

Examiner Initial	
	Abstract of "Integrated design and process technology. Volume 2" Tanik, M.M.; Bastani, F.B.; Gibson, D.; Fielding, P.J.; Society for Design and Process Science, p. 306-312, 1996.
	Abstract of "Need low-cost networking consider DeviceNet," W. H. Moss; InTech Vol. 43:11; p. 30-31, November 1996.
	"Plastic Car Bodies Pass the Crash Test," mechanical engineering; Vol. 118, No. 12; December 1996.
	"Remote Interrogation and Control of Sensors via the Internet," Sensors and Systems; Peter L. Fuhr and Euan F. Mowat; University of Vermont; pp. 25-30; December, 1999.

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